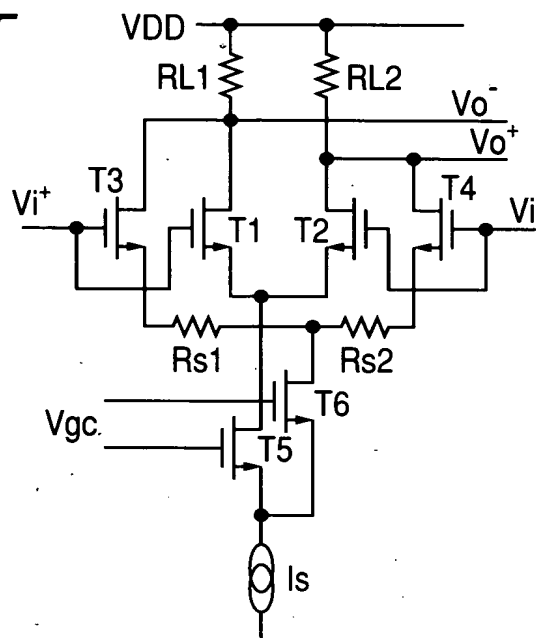


**FIG. 1**  
**PRIOR ART**



**FIG. 2**  
**PRIOR ART**

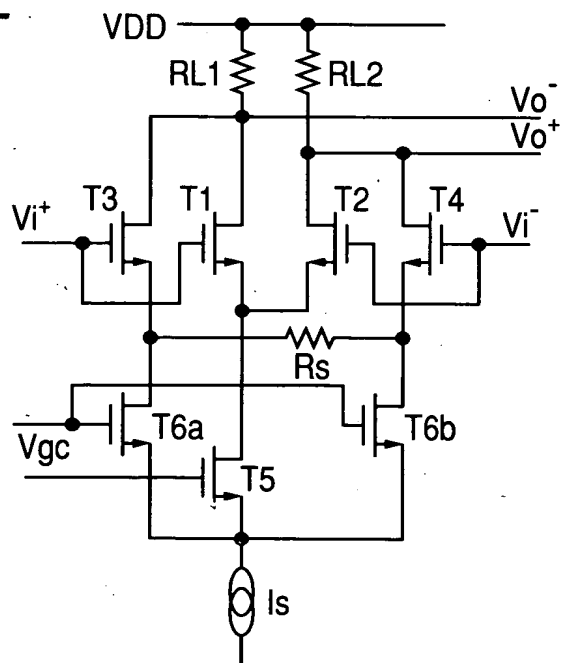




FIG. 5

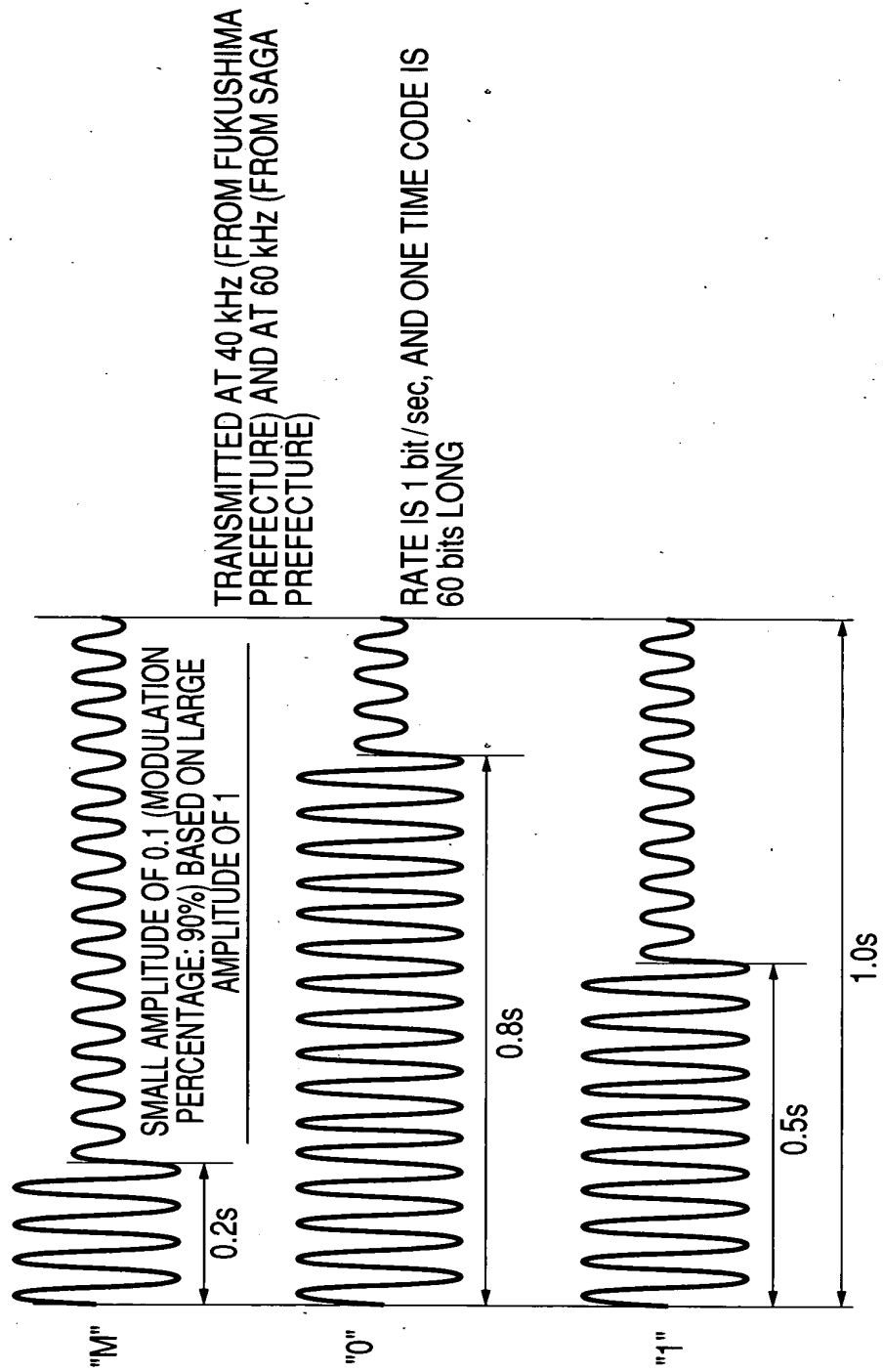
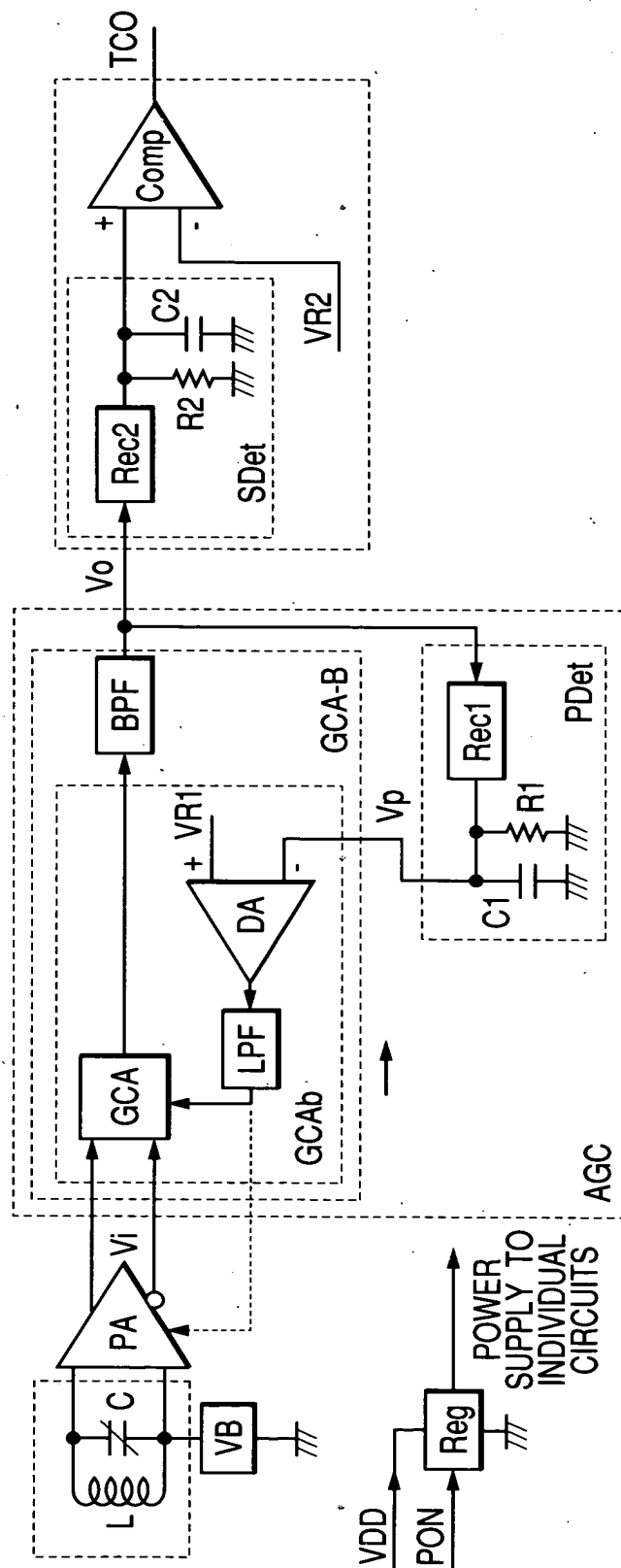
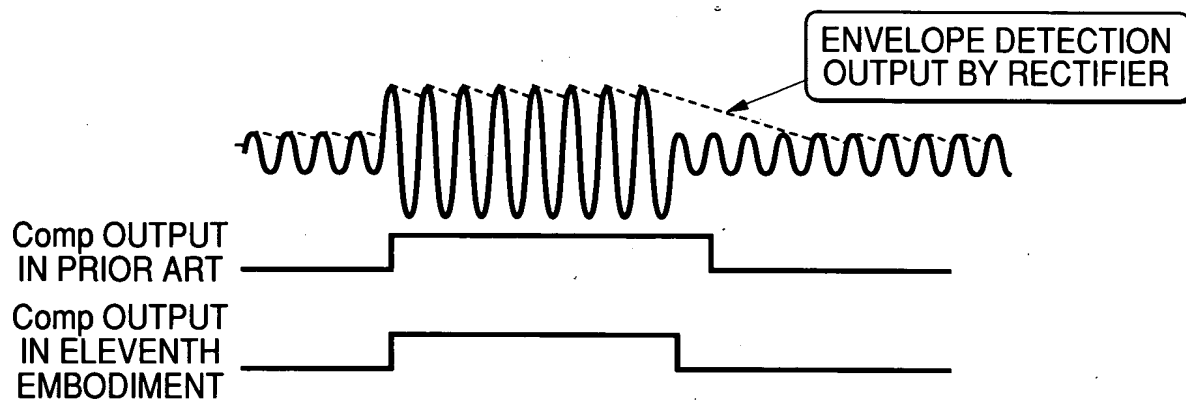


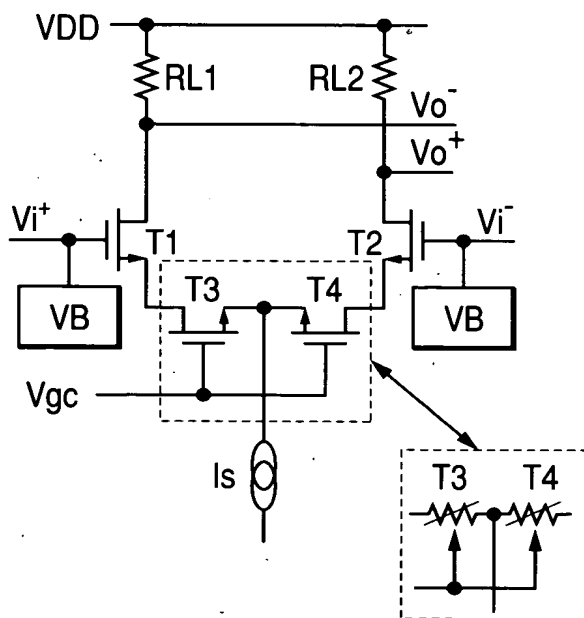
FIG. 6  
PRIOR ART



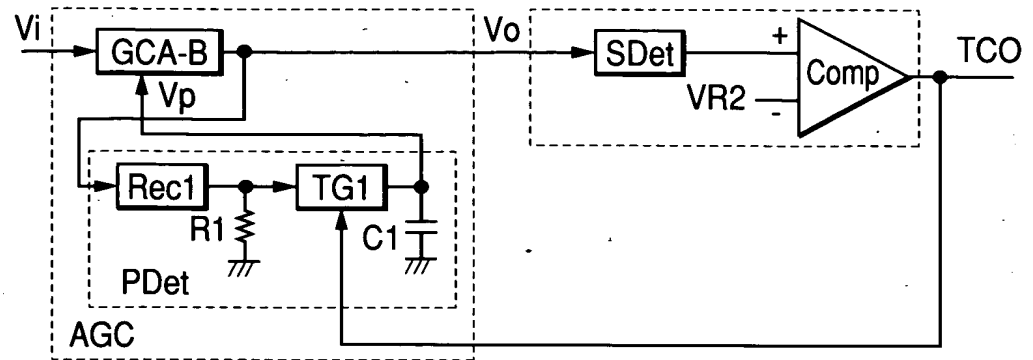
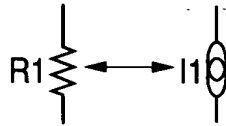
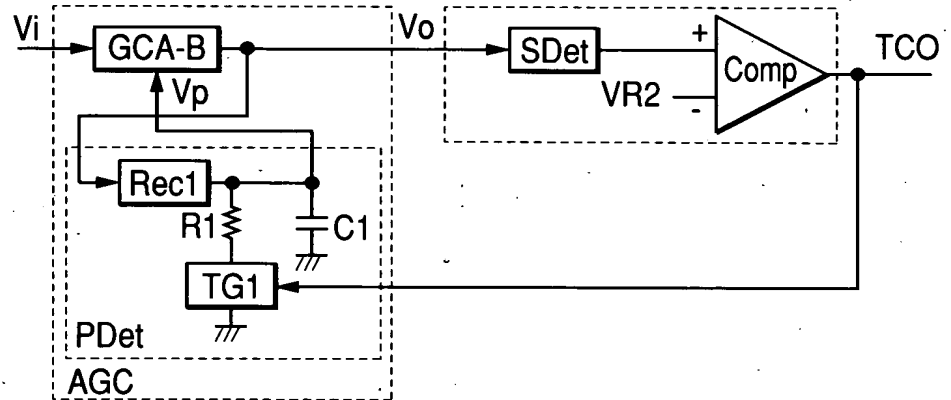
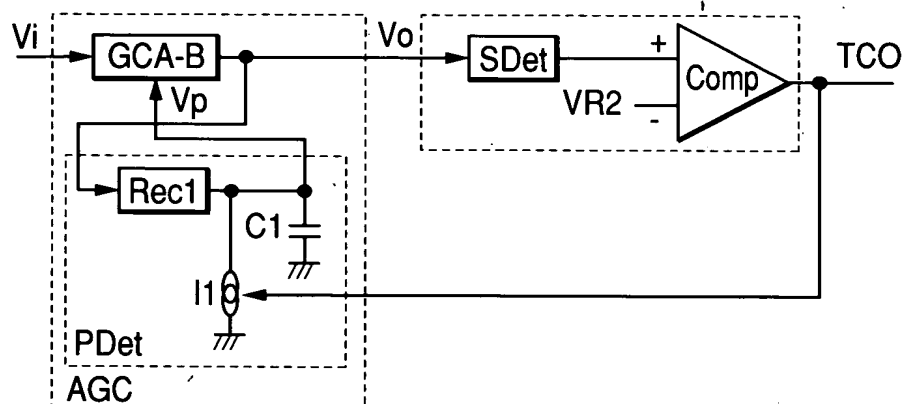
**FIG. 7**

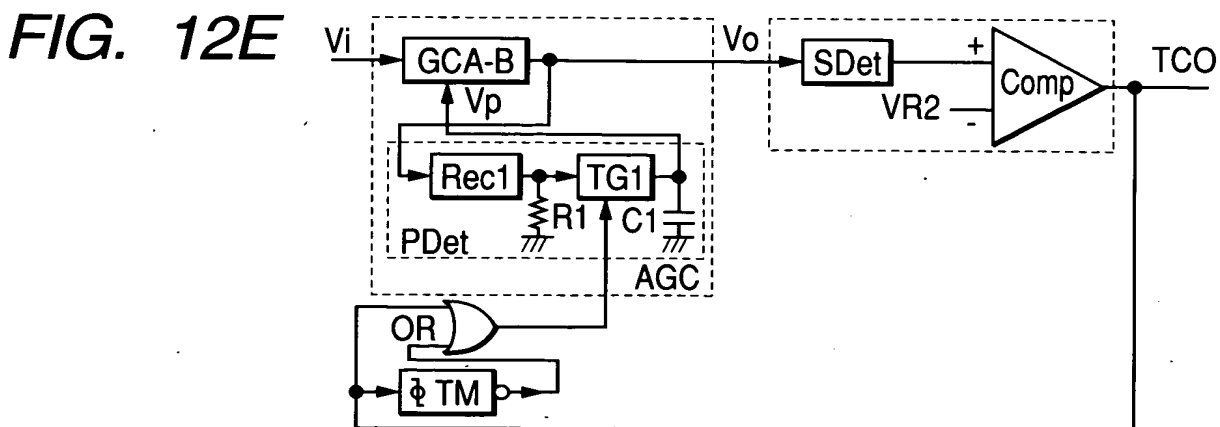
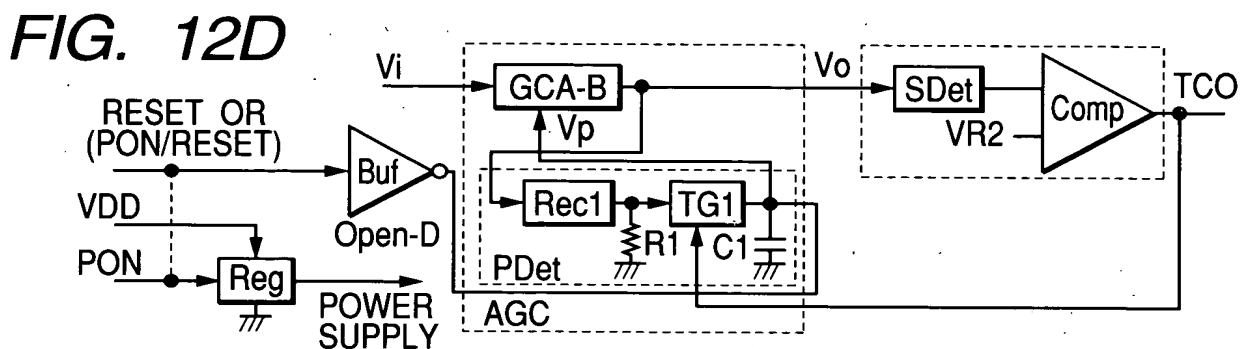
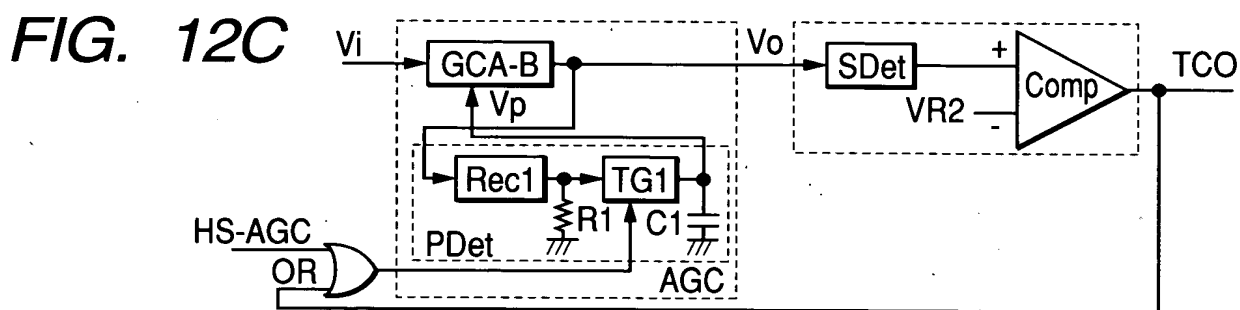
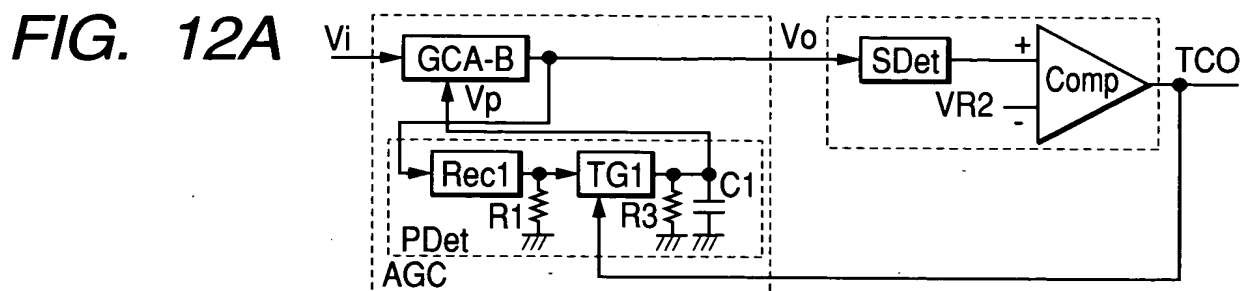


**FIG. 8**

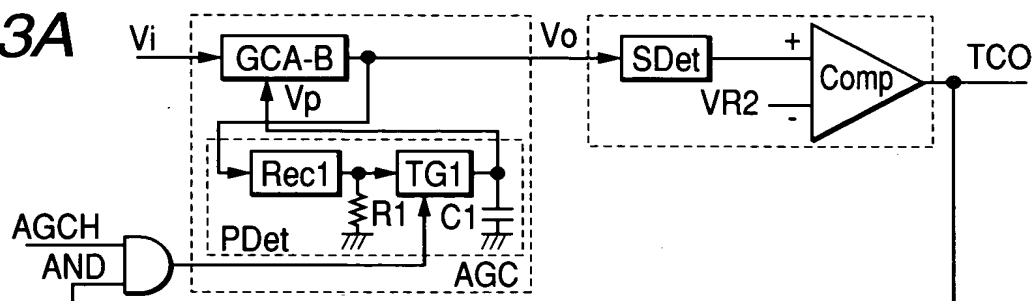
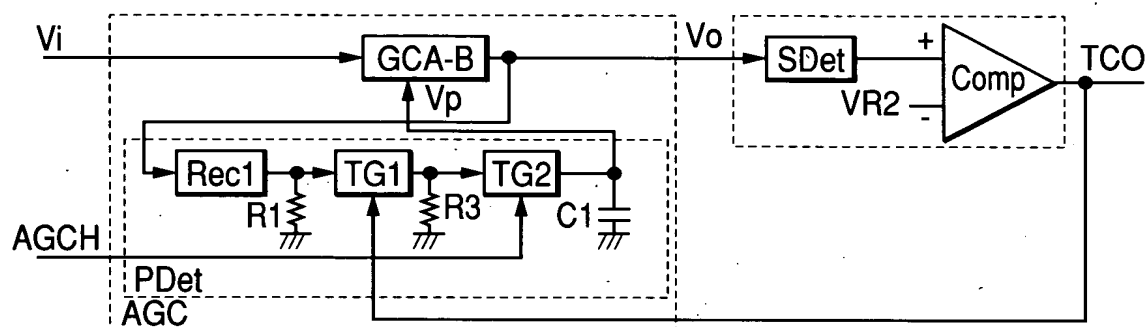
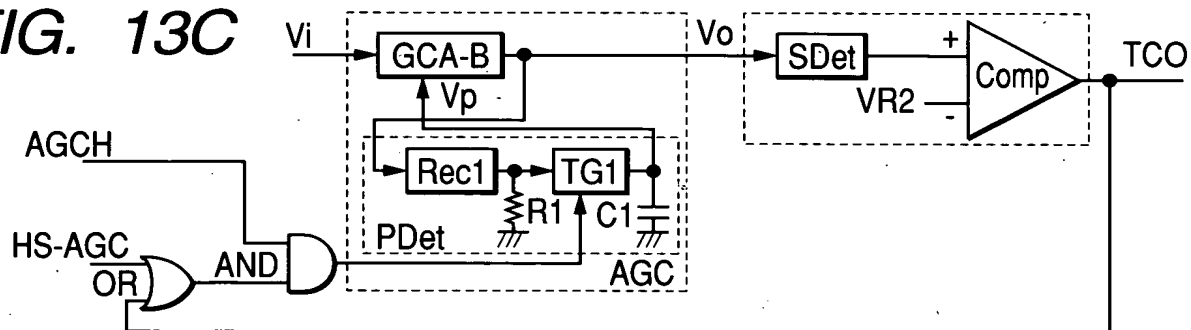
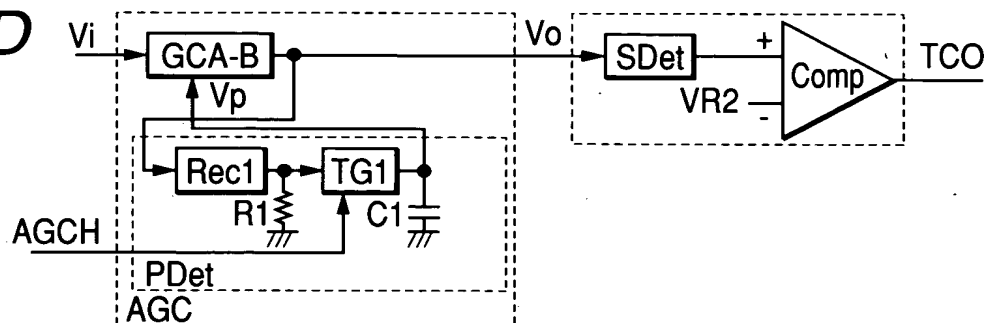


The diagram shows a differential pair of NMOS transistors, T1 and T2, with gates connected to a common-mode feedback loop. The sources of T1 and T2 are connected to a common node, which is the gates of PMOS transistors T3 and T4. The gates of T3 and T4 are connected to a common-mode feedback loop, which is a voltage divider between VDD and the common source node. The output nodes are labeled  $V_o^-$  and  $V_o^+$ . The input nodes are labeled  $V_i^+$  and  $V_i^-$ . The feedback loop is connected to the gates of T1 and T2. The feedback loop is a voltage divider between VDD and the common source node. The feedback loop is connected to the gates of T1 and T2. The feedback loop is a voltage divider between VDD and the common source node. The feedback loop is connected to the gates of T1 and T2.

**FIG. 11A****FIG. 11B****FIG. 11C****FIG. 11D**





**FIG. 13A****FIG. 13B****FIG. 13C****FIG. 13D**

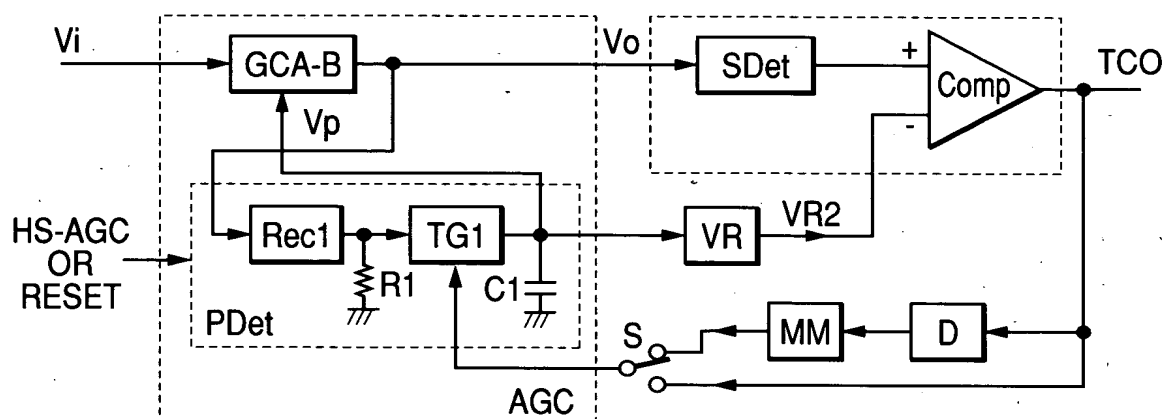
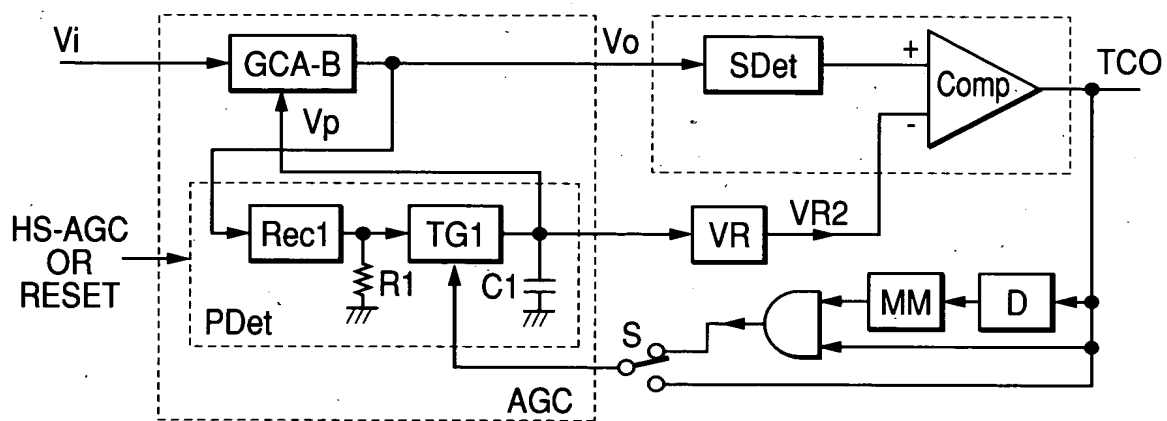
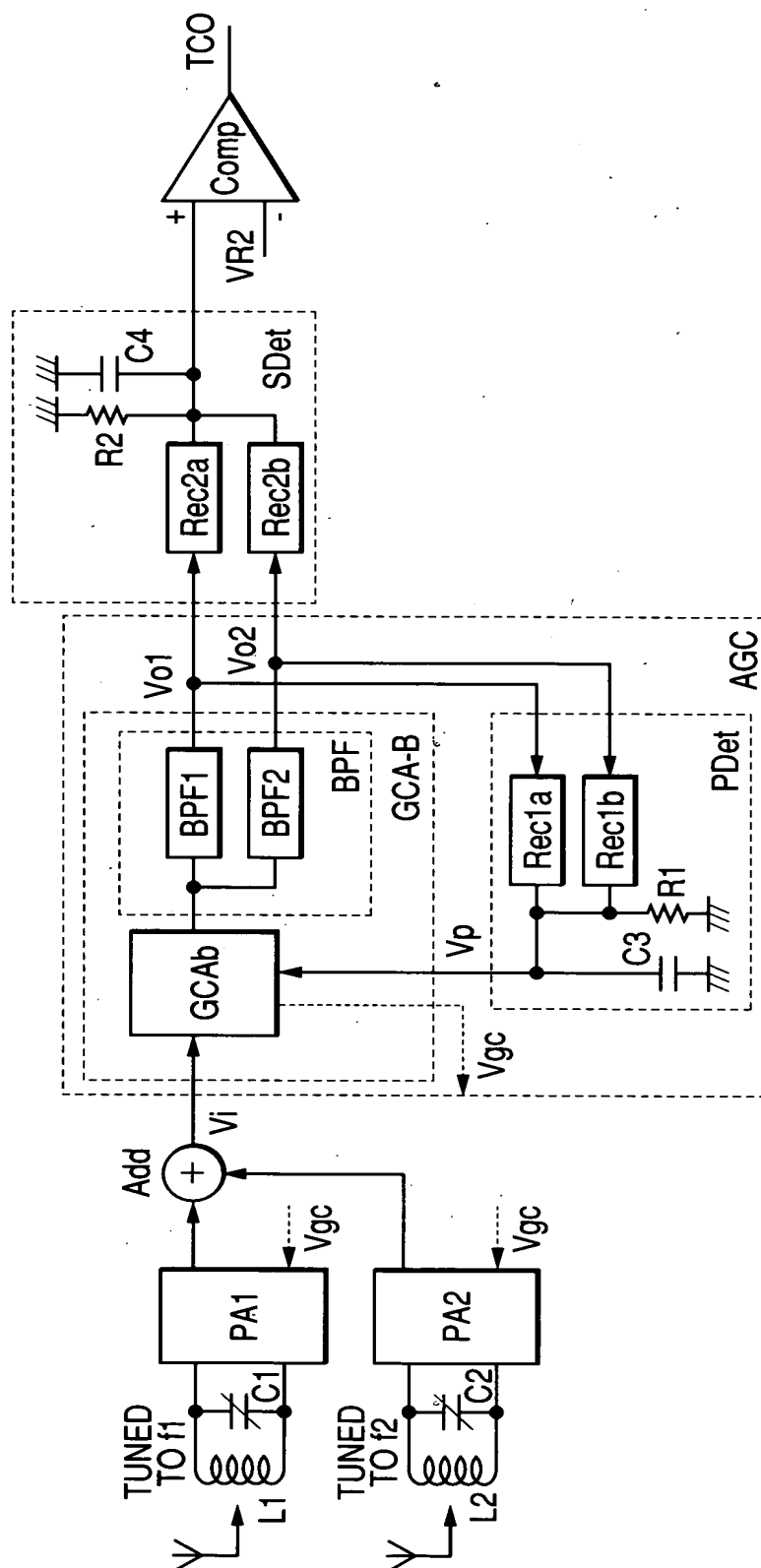
**FIG. 14A****FIG. 14B**

FIG. 15



12 / 31

FIG. 16

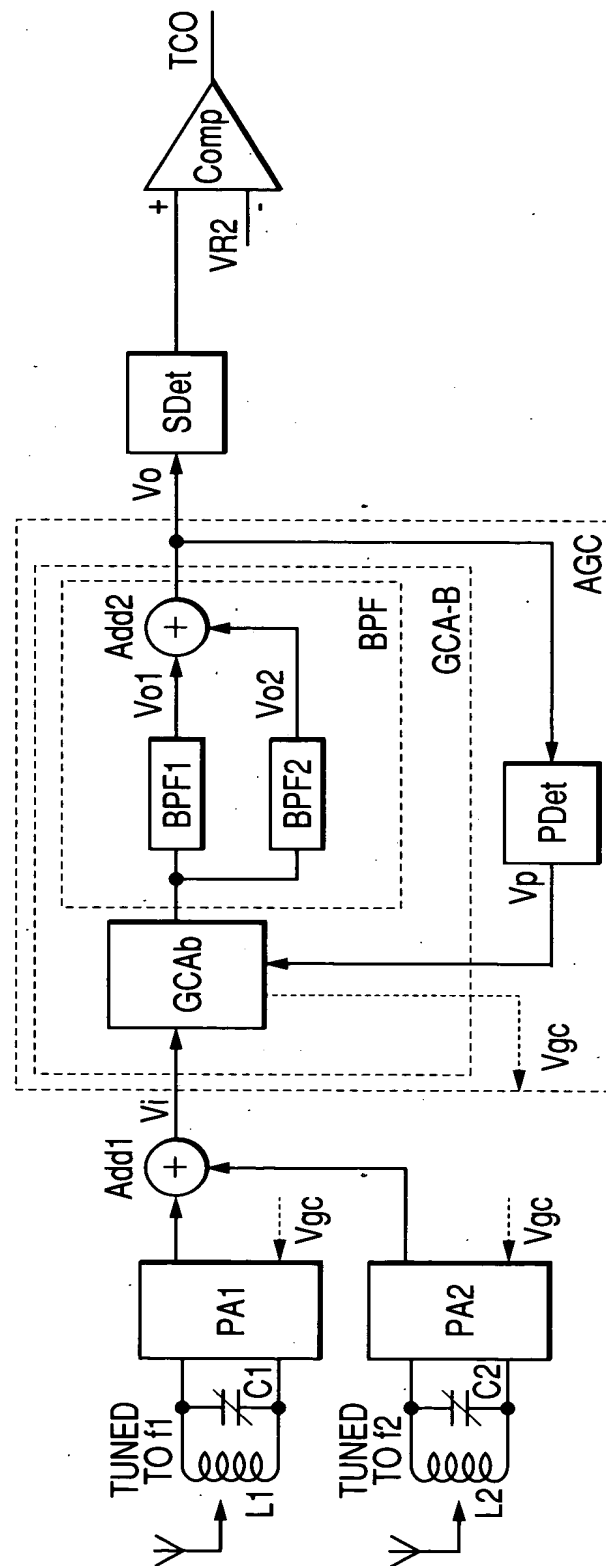


FIG. 17

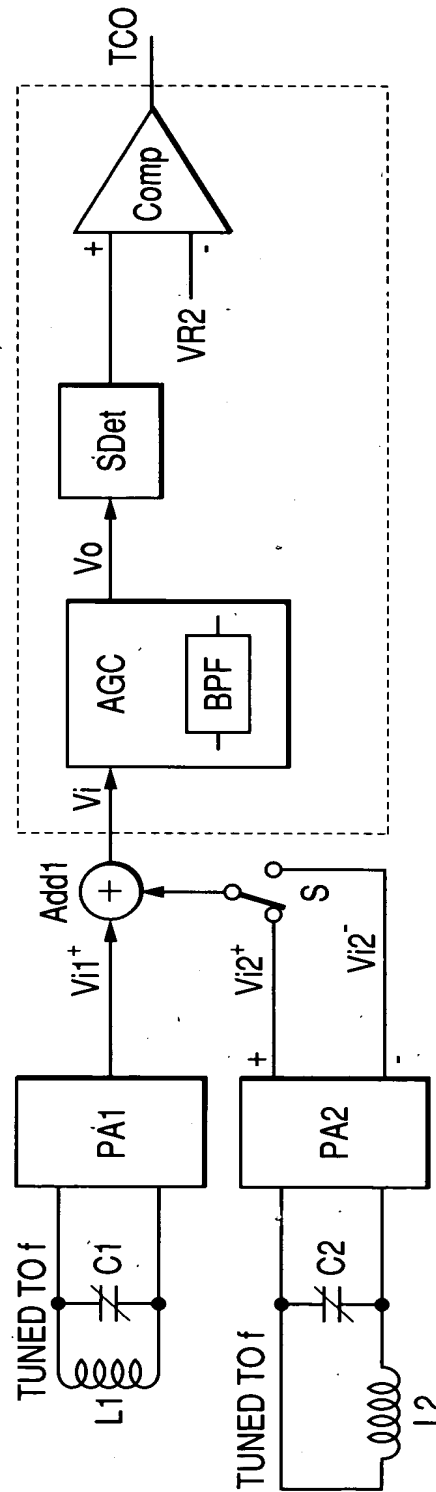
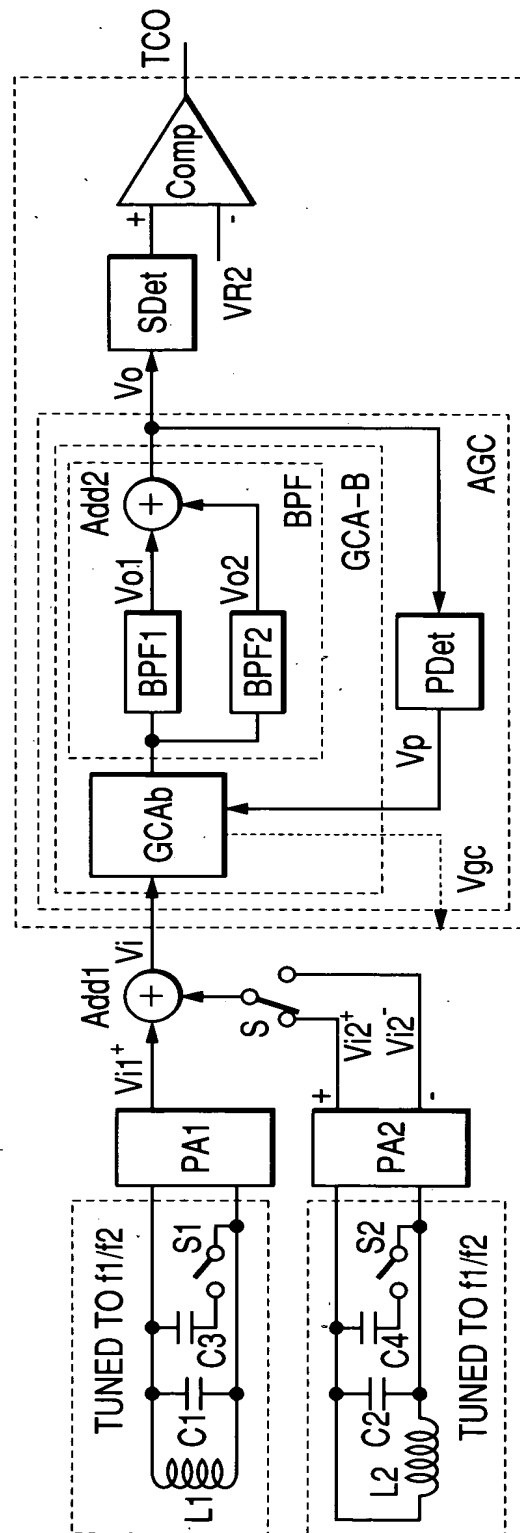


FIG. 18



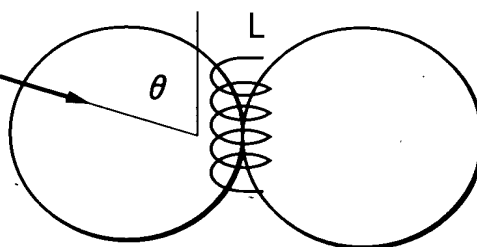
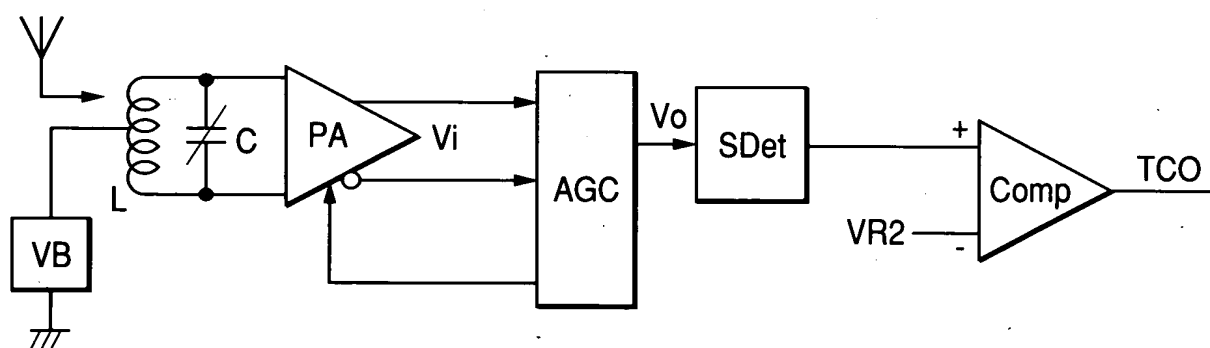
**FIG. 19**ARRIVAL DIRECTION  
OF RADIO WAVE**FIG. 20**

FIG. 21A

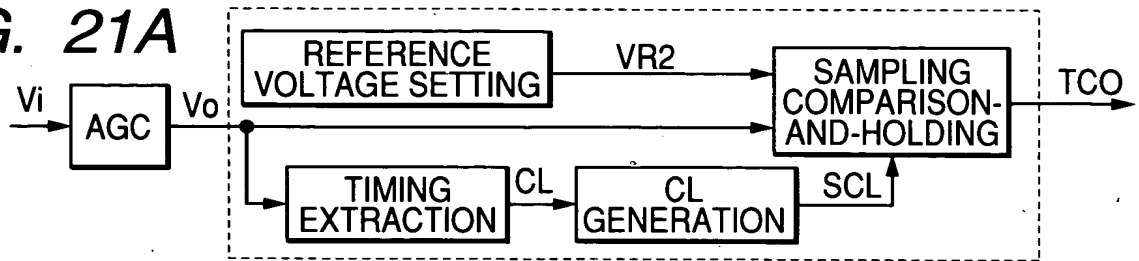


FIG. 21B

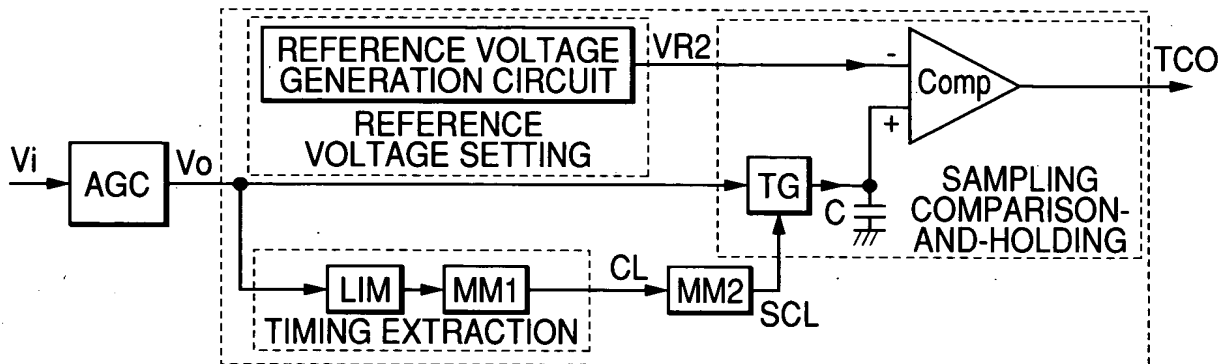


FIG. 21C

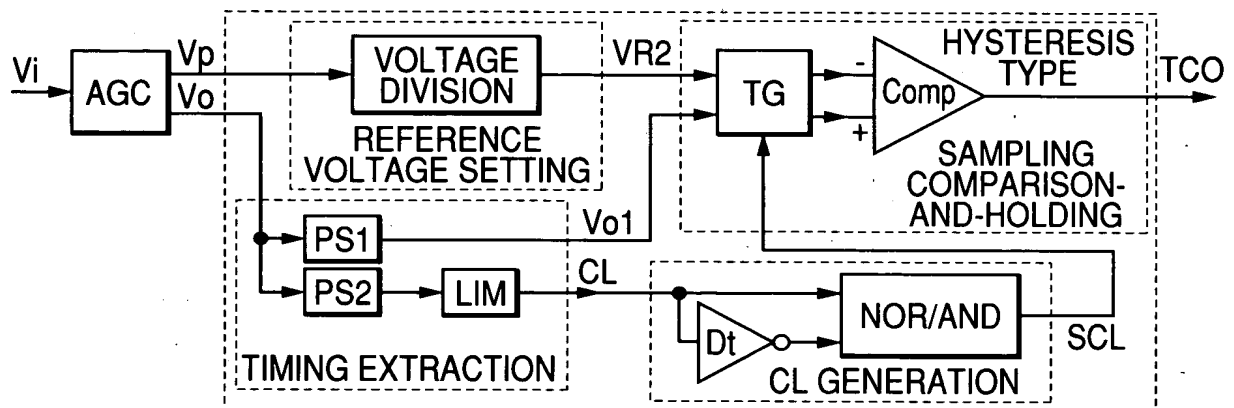
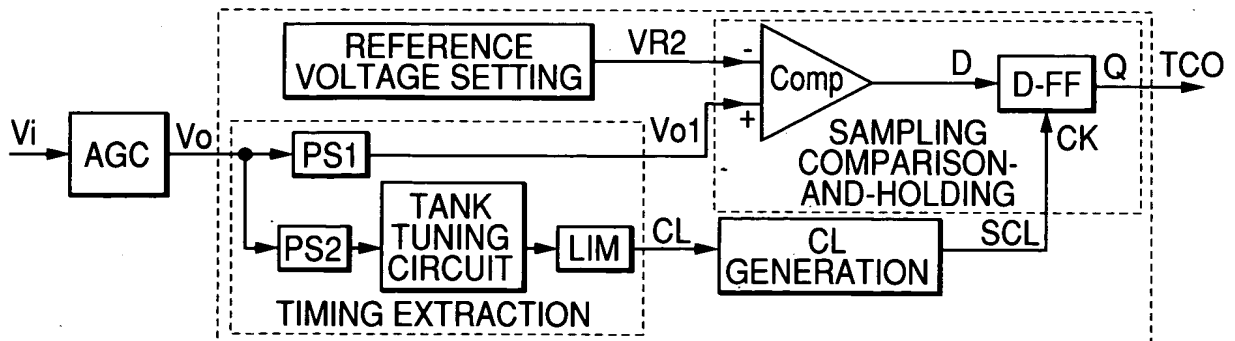


FIG. 21D





17 / 31

FIG. 22A

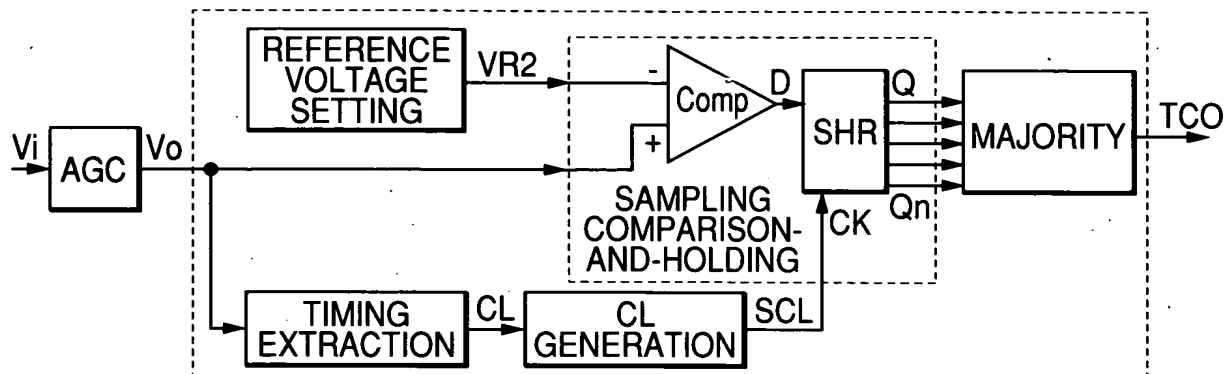


FIG. 22B

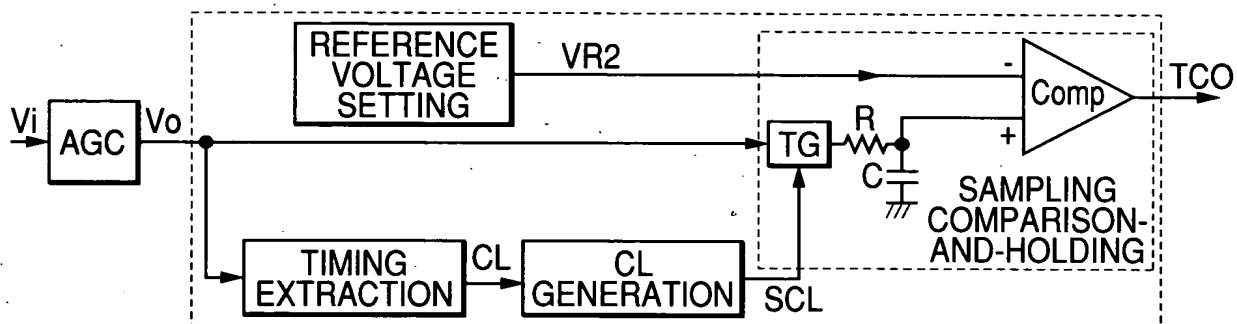
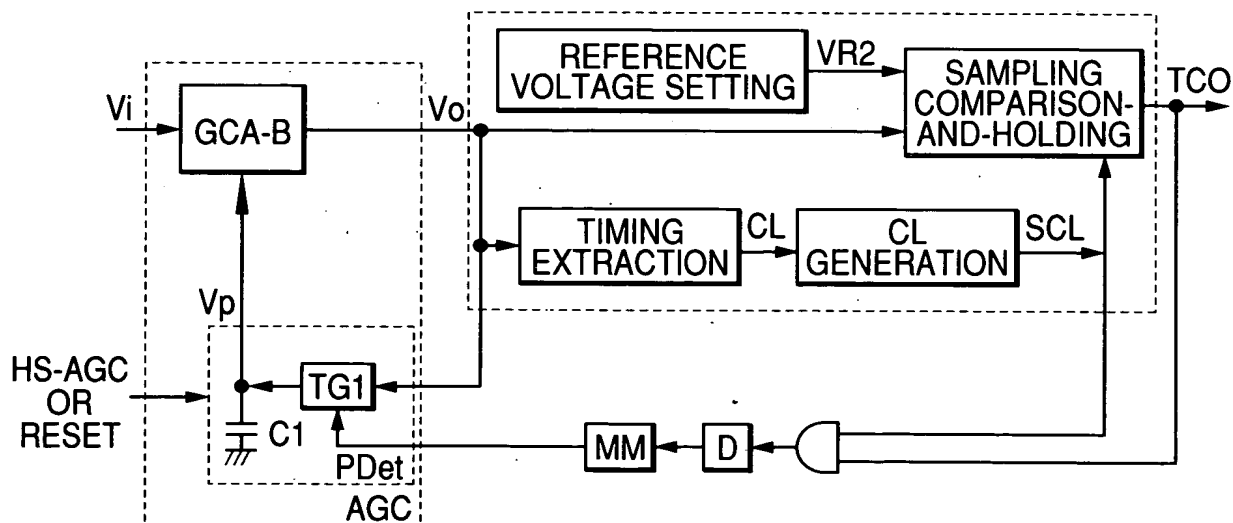


FIG. 23



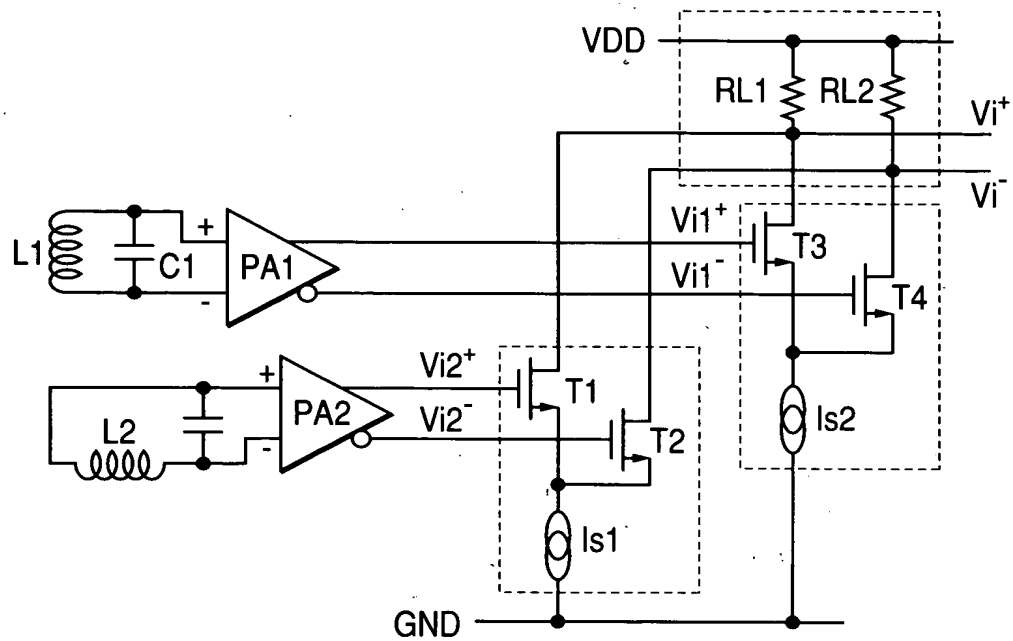
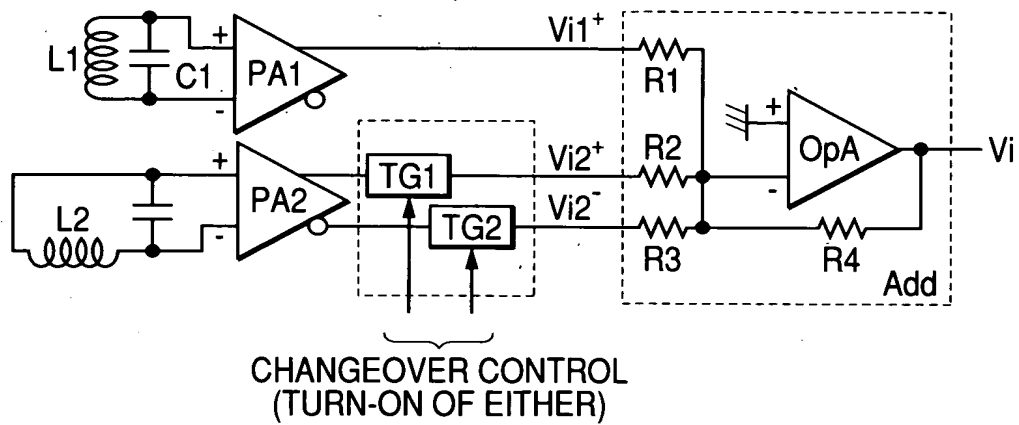
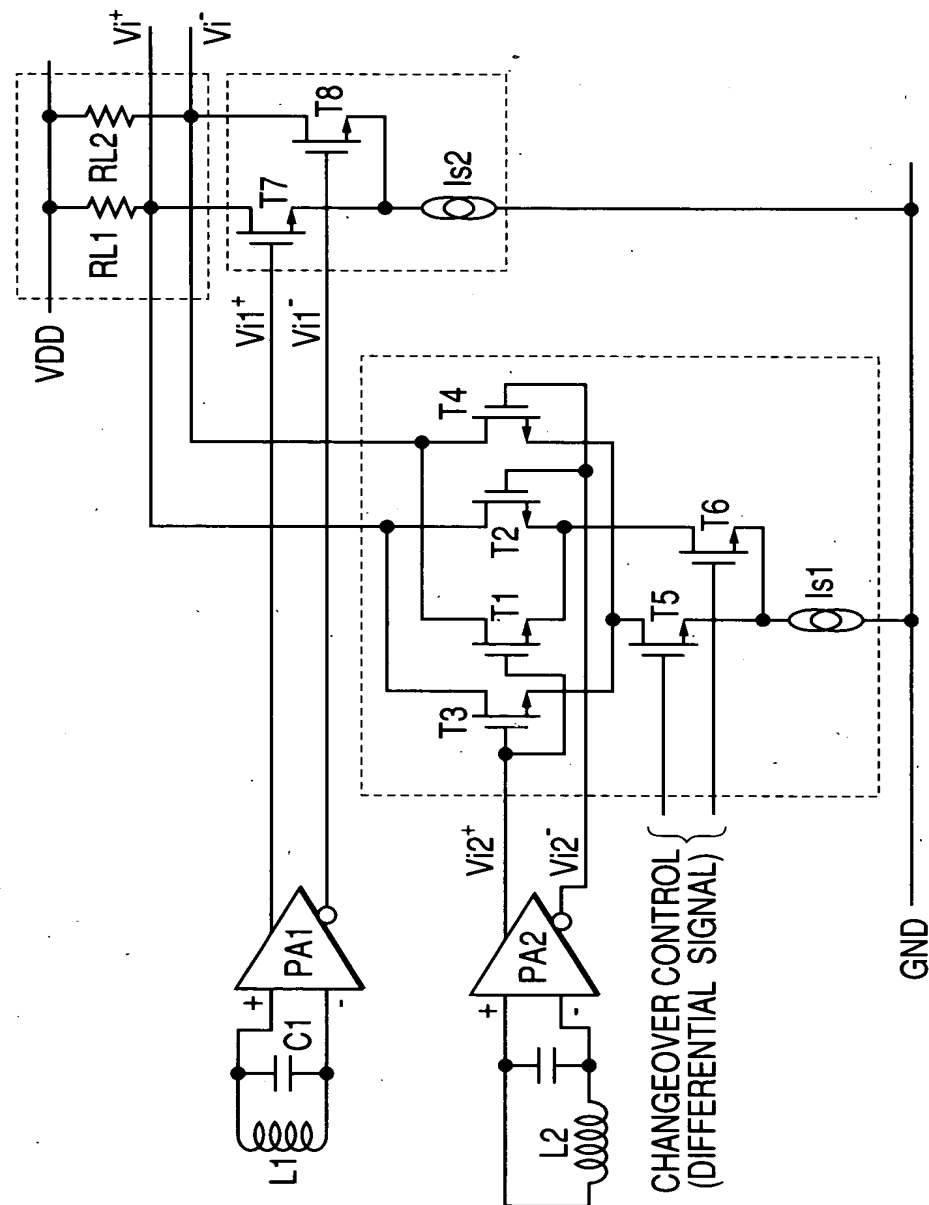
**FIG. 24****FIG. 25**

FIG. 26



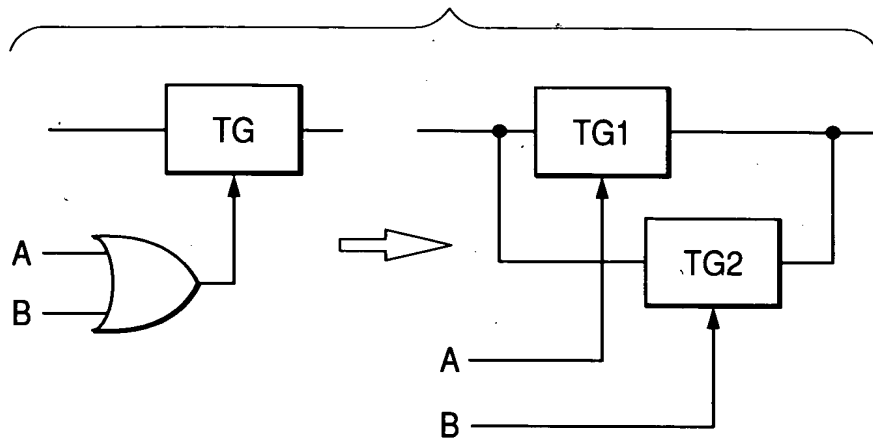
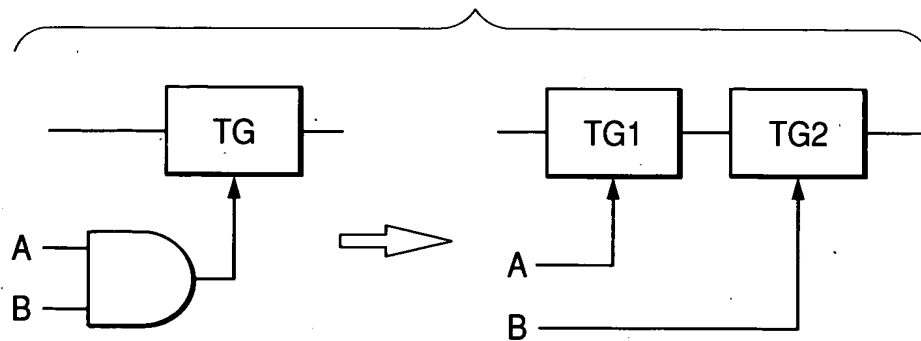
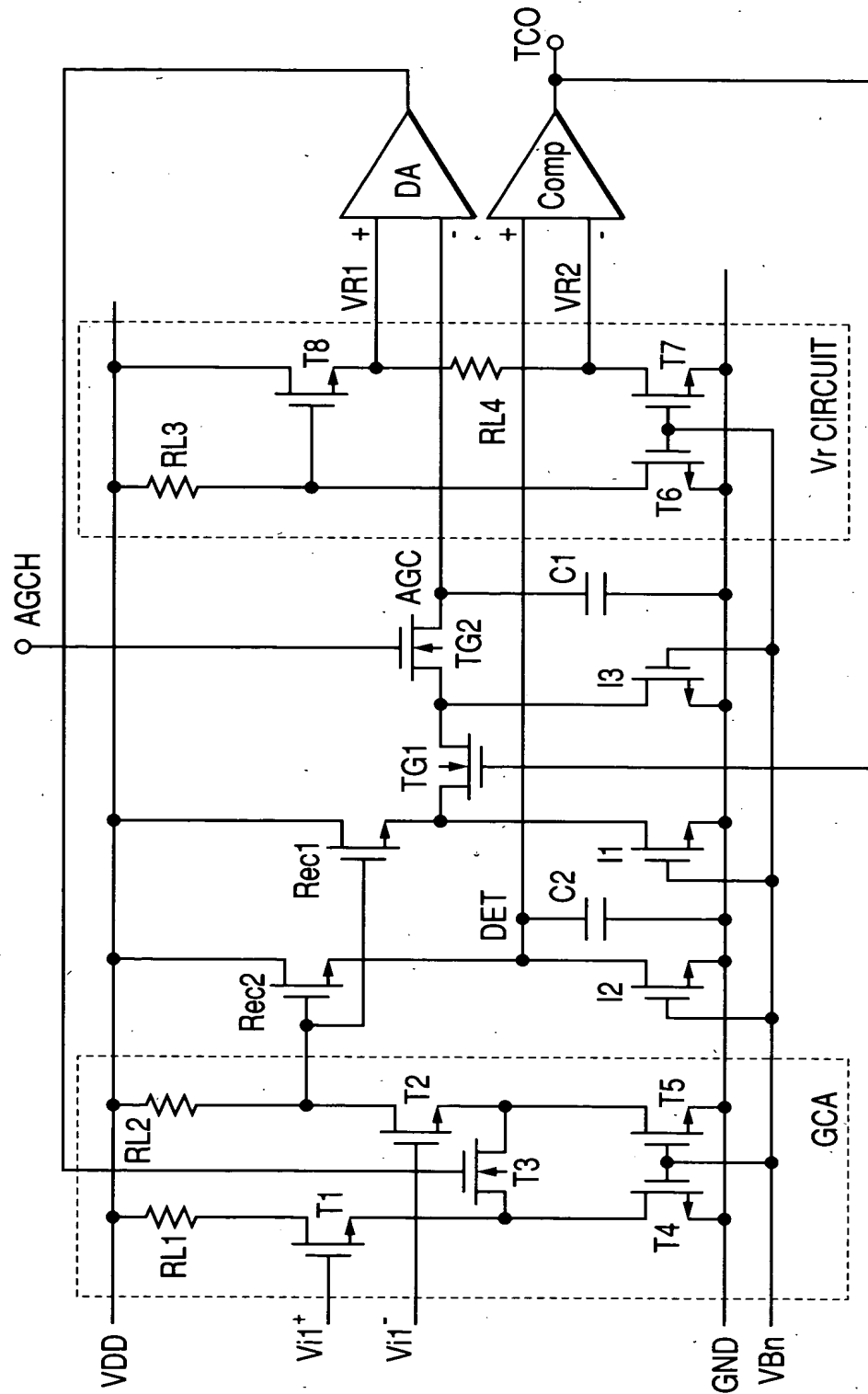
**FIG. 27****FIG. 28**

FIG. 29



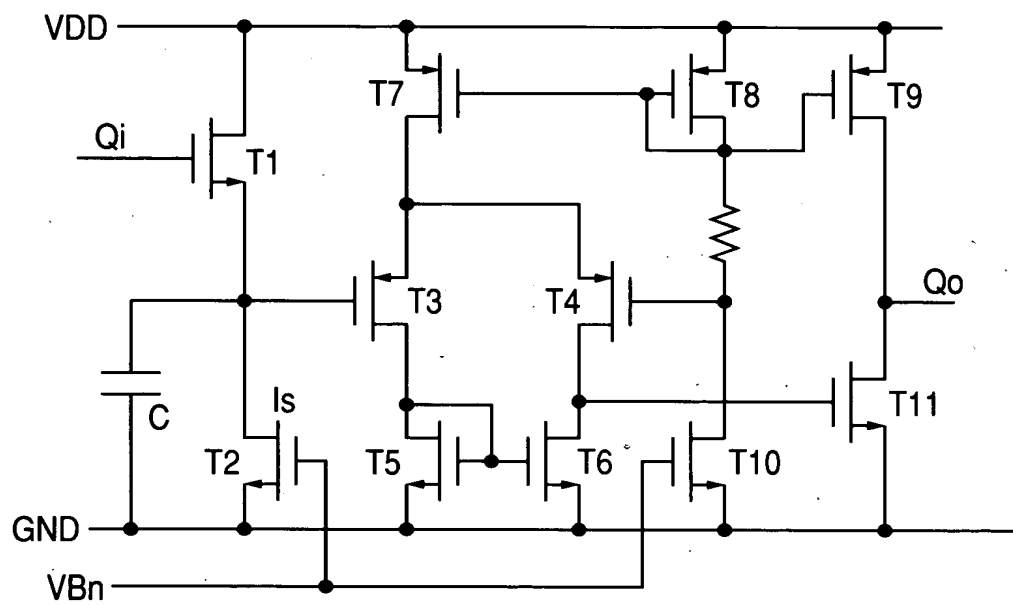
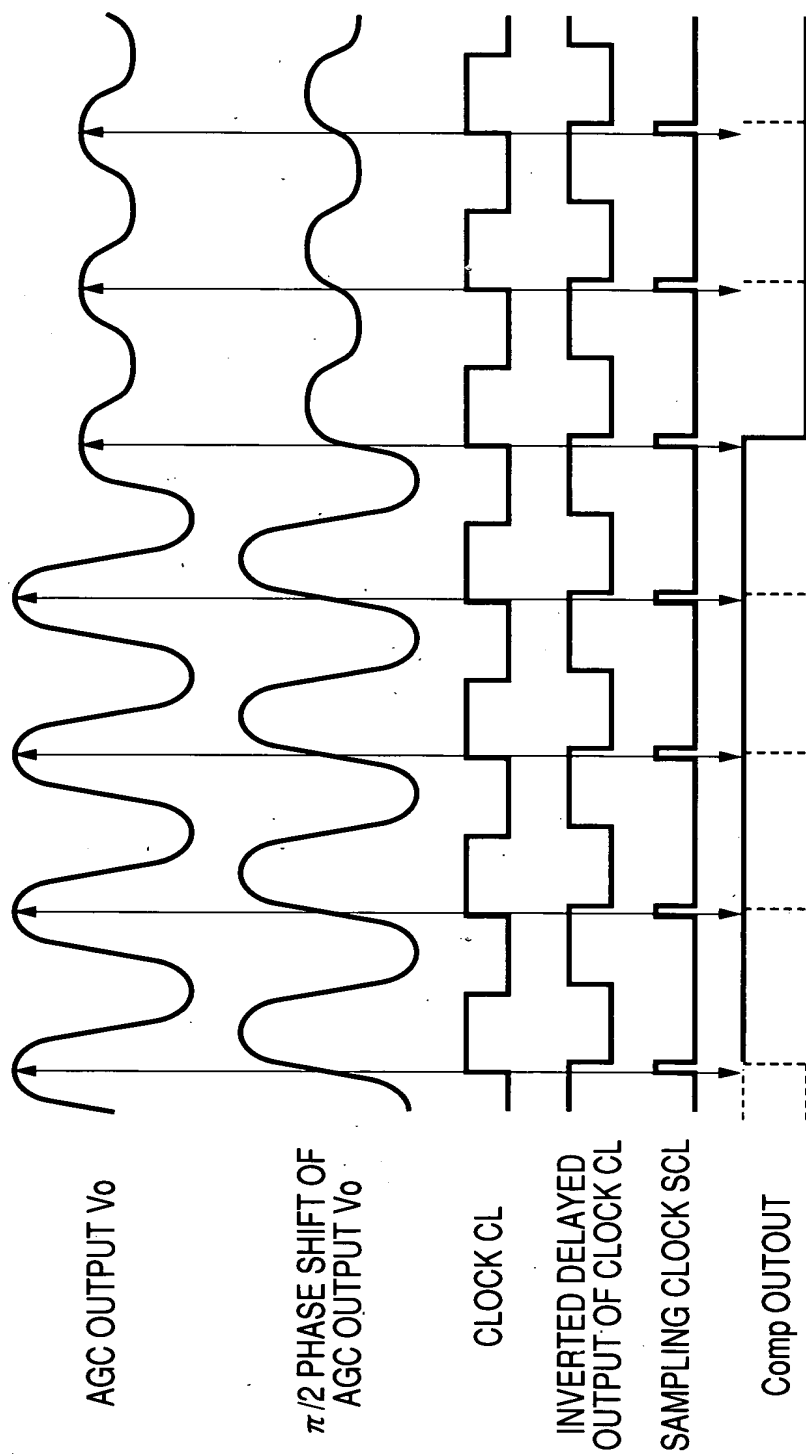
*FIG. 30*

FIG. 31



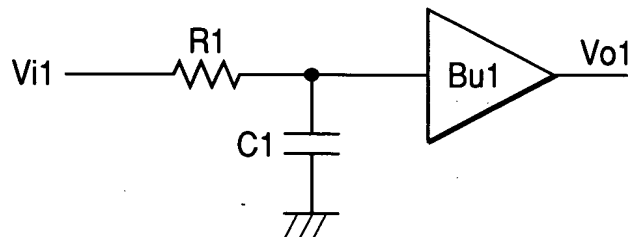
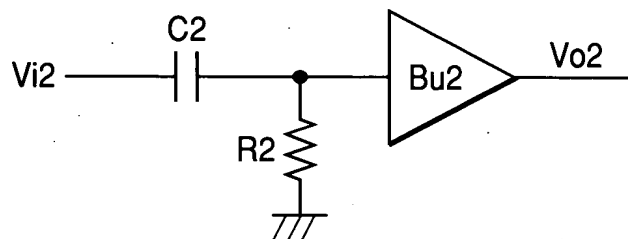
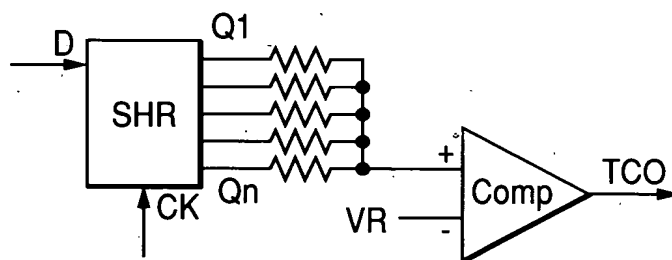
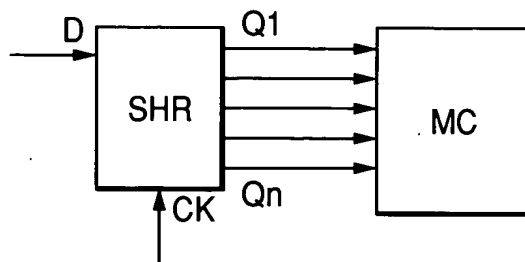
**FIG. 32****FIG. 33****FIG. 34****FIG. 35**



FIG. 36

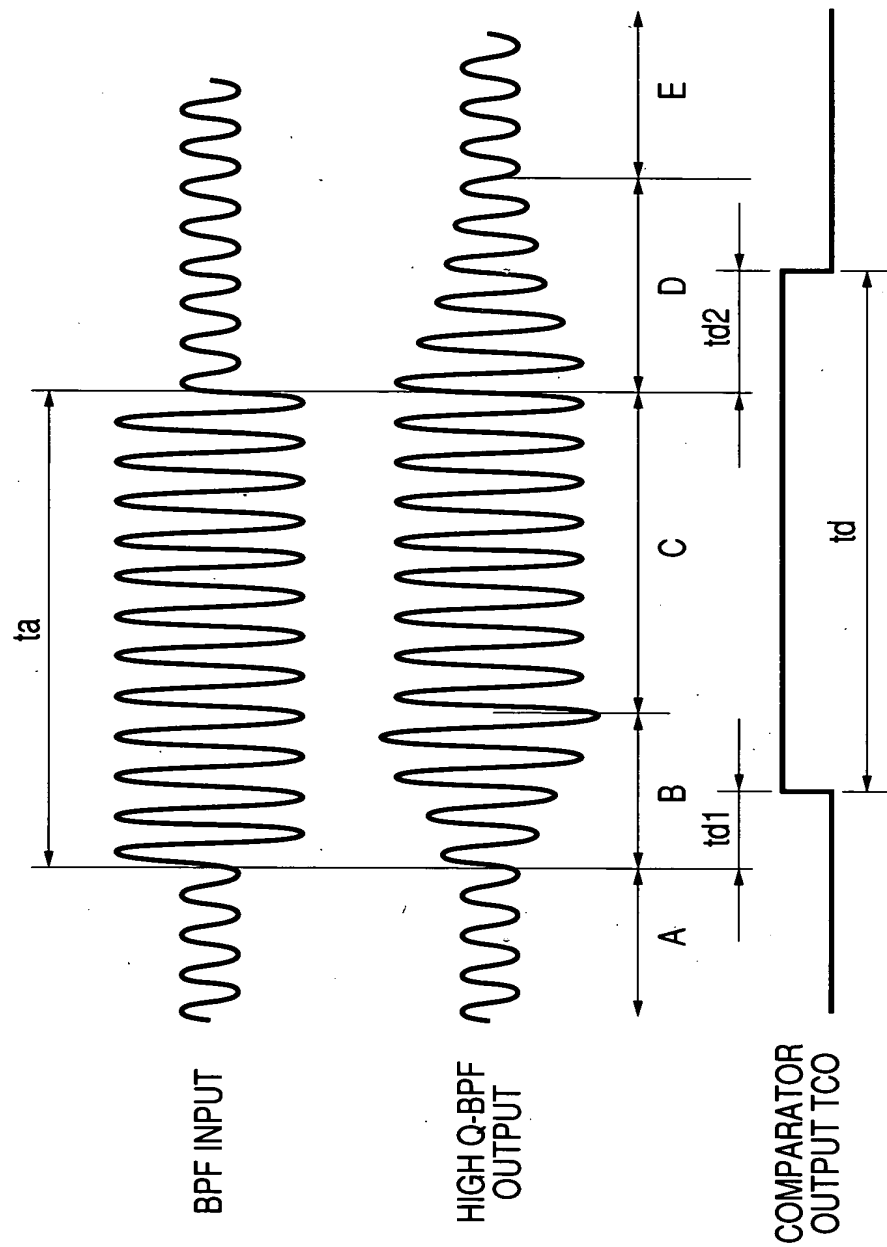


FIG. 37

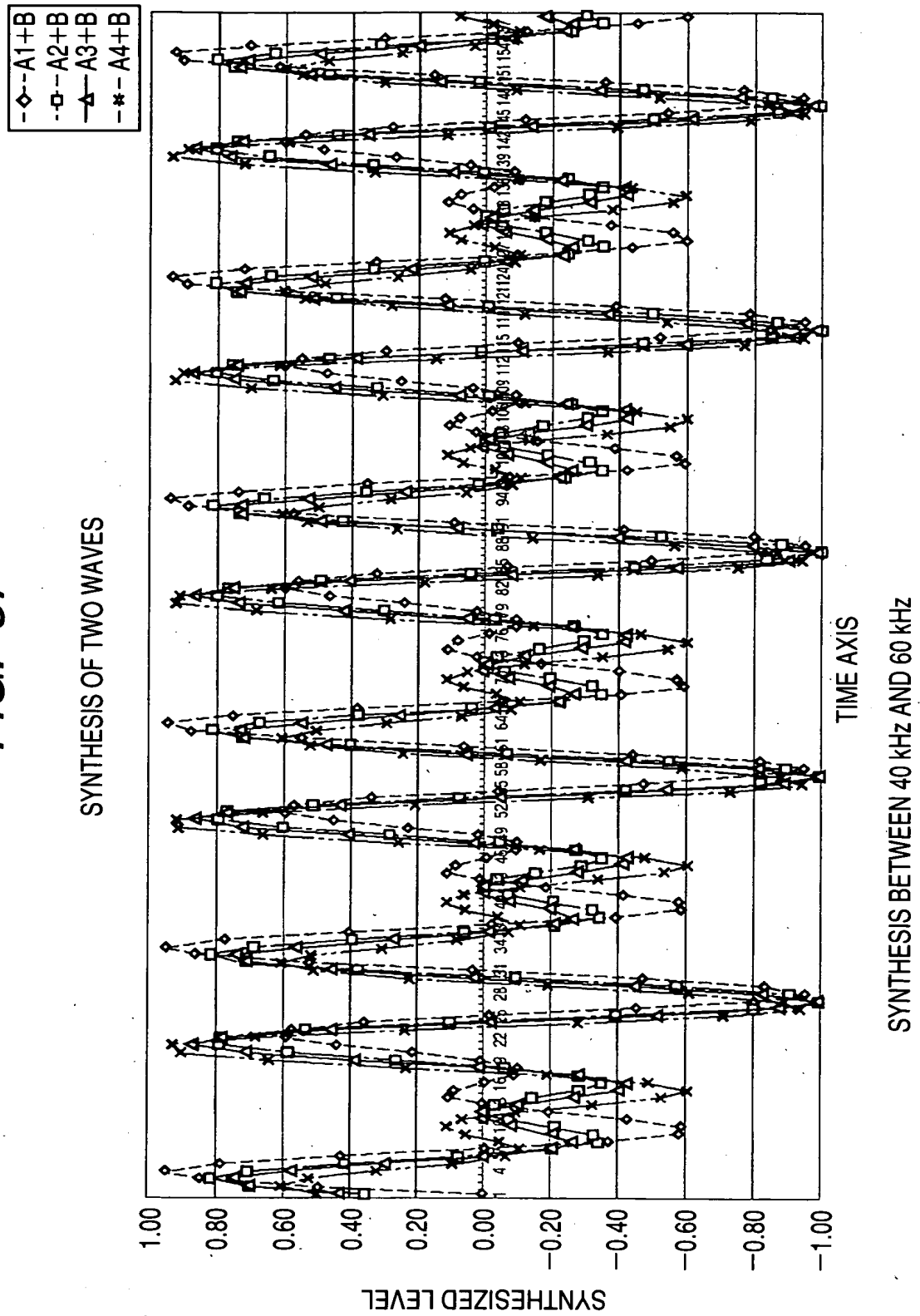
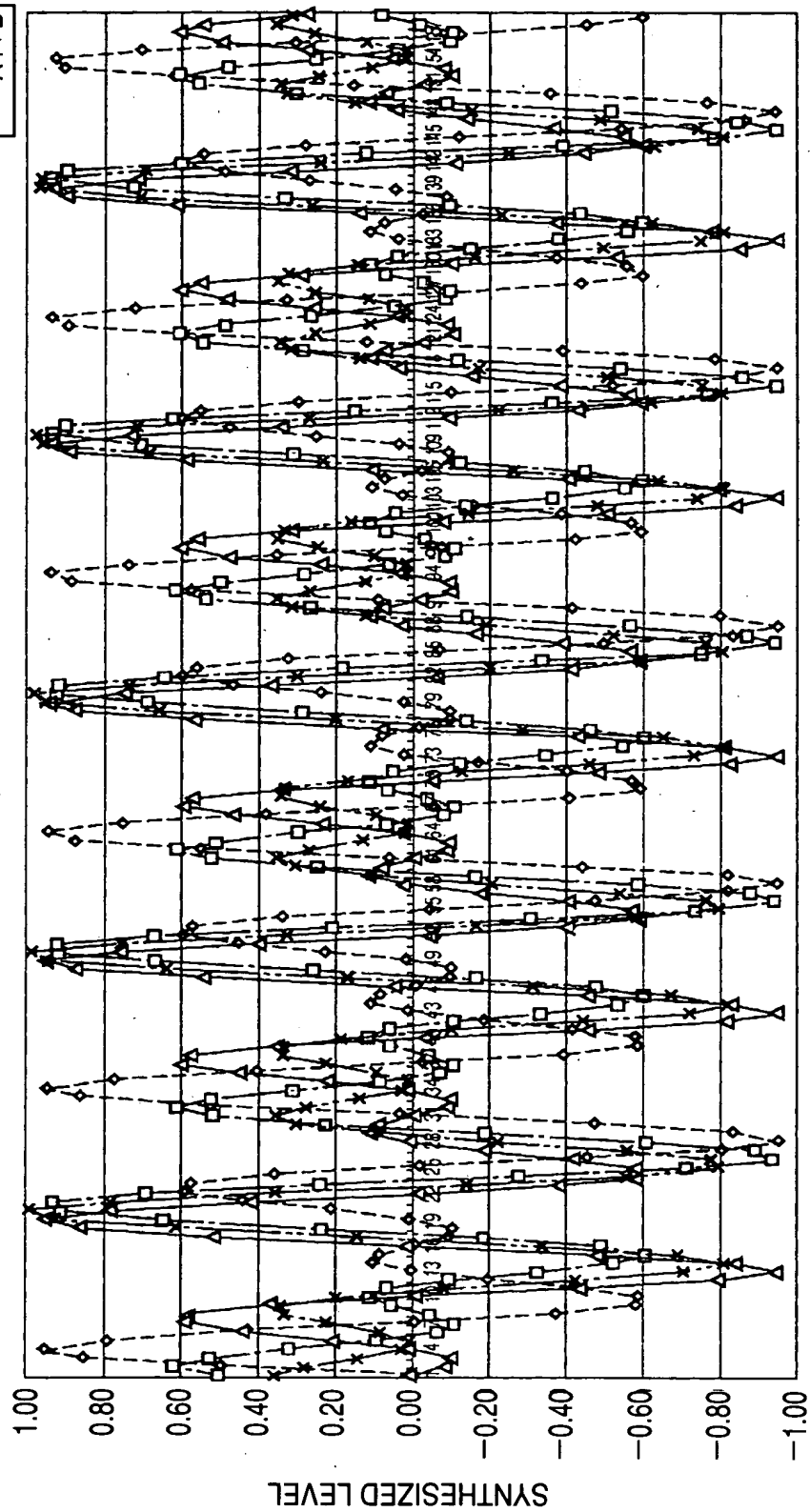


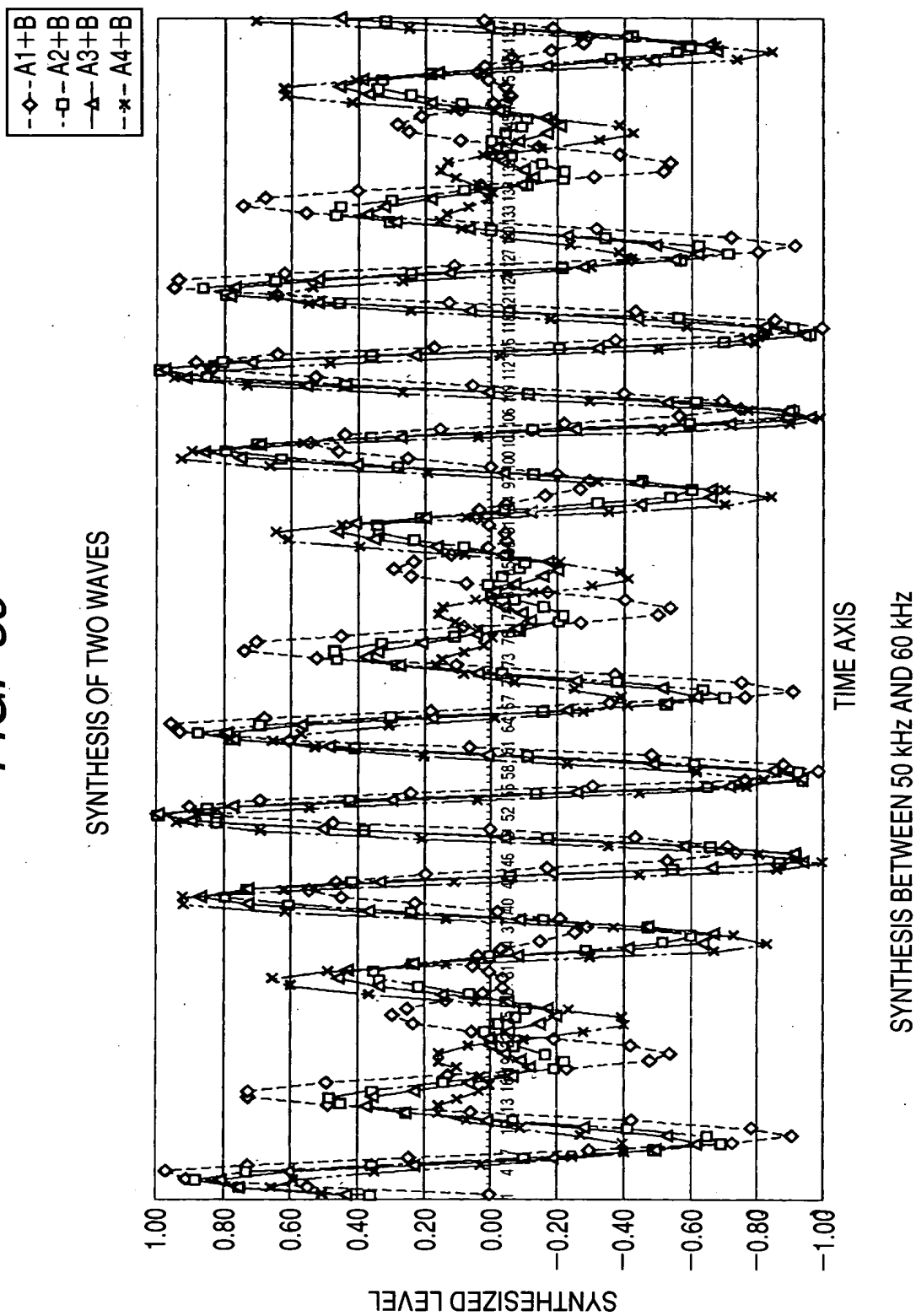
FIG. 38

SYNTHESIS OF TWO WAVES



SYNTHESIS BETWEEN 40 kHz AND 60 kHz

FIG. 39



29 / 31

FIG. 40

SYNTHESIS OF TWO WAVES

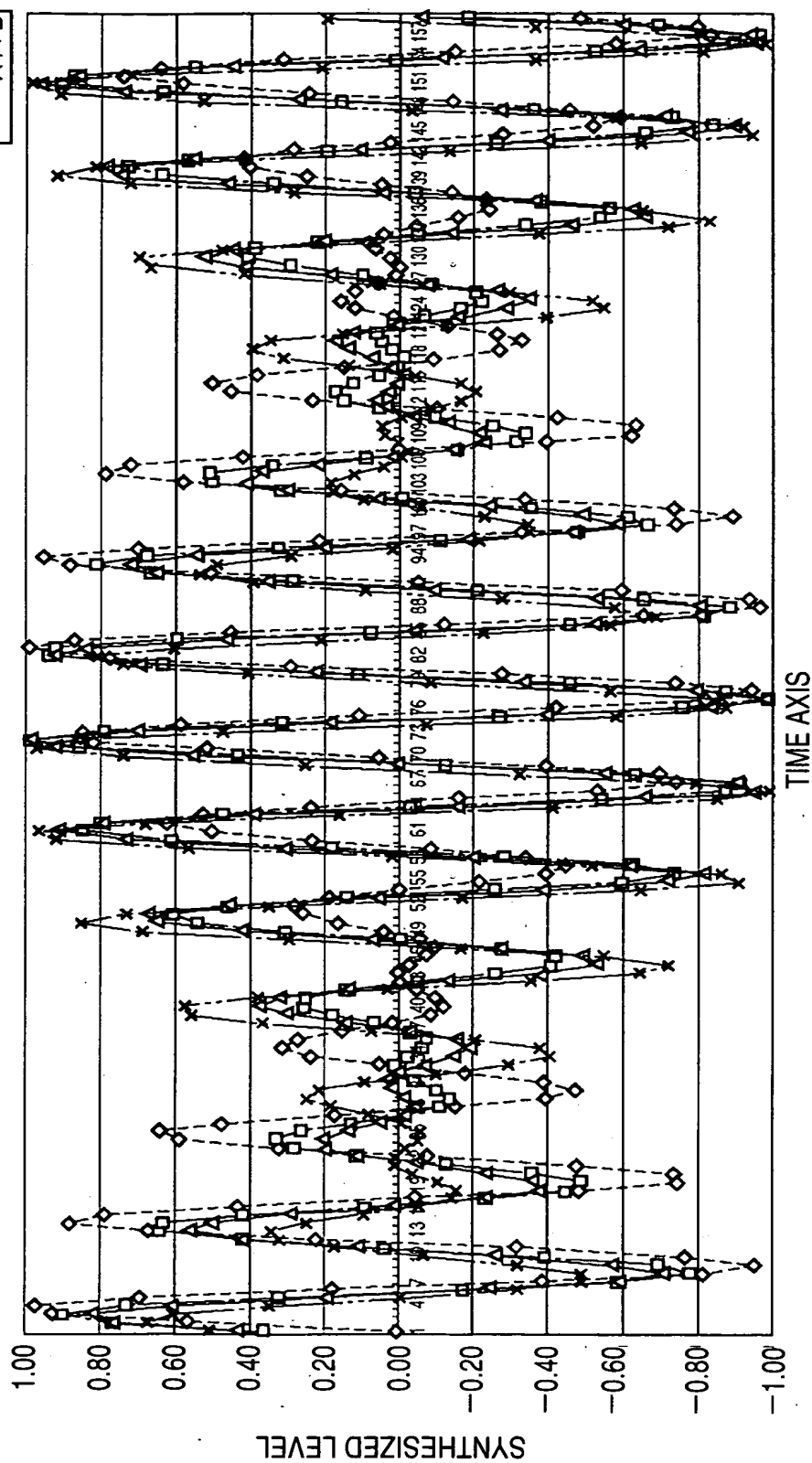


FIG. 41

SYNTHESIS OF TWO WAVES

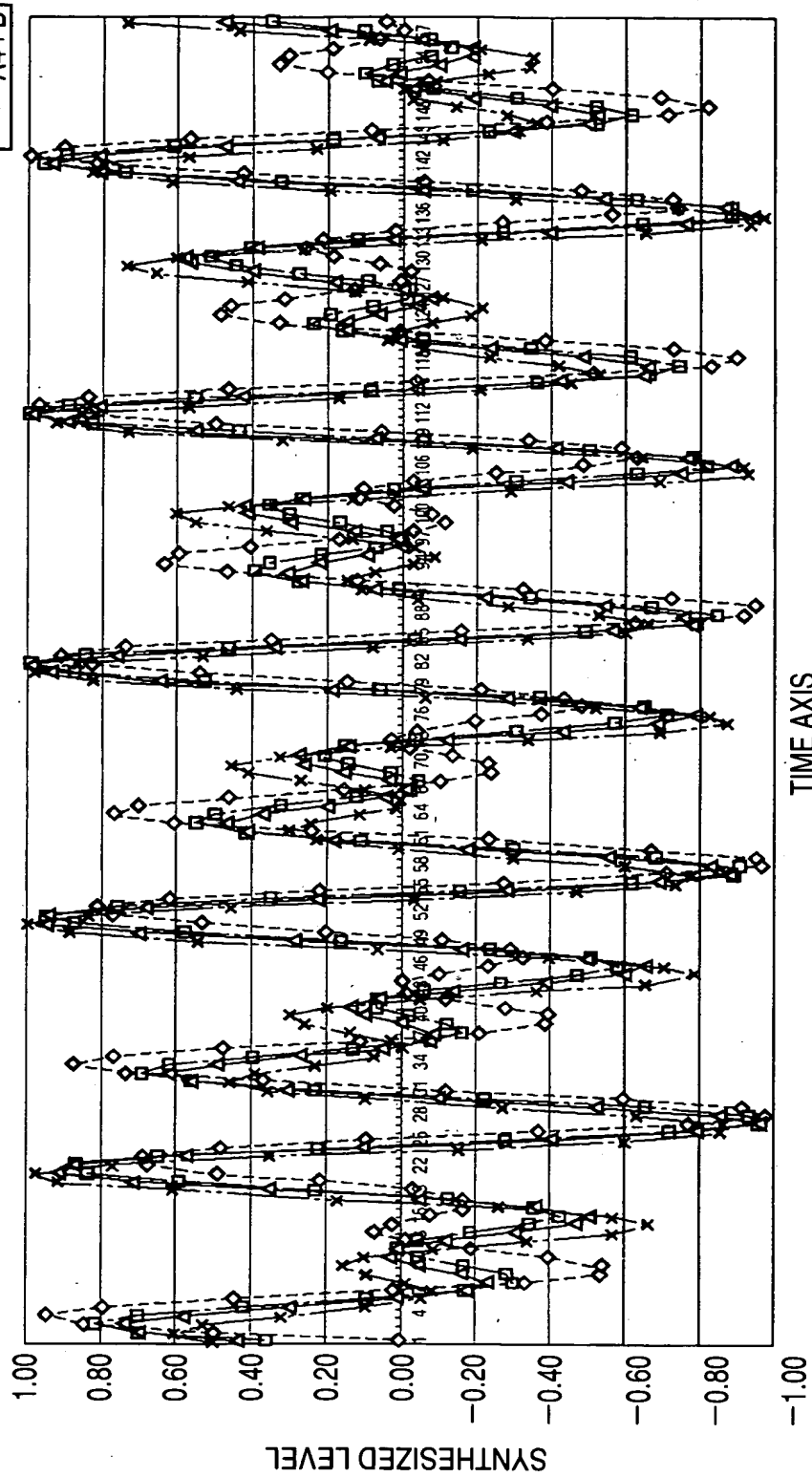


FIG. 42

